

HAWAII, ISLAND OF MAUI

16518000 WEST WAILUAIKI STREAM NEAR KEANAE

LOCATION.--Lat 20° 49'16", long 156° 08'37", Old Hawaiian Datum, Hydrologic Unit 20020000, on left bank 500 ft upstream from Koolau Ditch crossing and trail bridge, and 2.8 mi south of Keanae Post Office.

DRAINAGE AREA.--3.66 mi².

PERIOD OF RECORD.--January 1914 to December 1915, May 1916 to October 1917, November 1921 to current year. Monthly discharge only for some periods, published in WSP 1319.

REVISED RECORDS.--WSP 1569. Drainage area. WSP 2137: 1915-16(M), 1923-25(M), 1929-31(M), 1934-35(M), 1937-39(M), 1941-43(M), 1946-47(M), 1948(P), 1949(M), 1952-53(M), 1955-56(M), 1959-60(M), 1960(P), 1961(M), 1963(M).

GAGE.--Water-stage recorder. Datum of gage is 1,343.1 ft above mean sea level (by vertical angles). Prior to October 3, 1974, at present site at datum 0.50 ft higher.

REMARKS.--Records computed by Matt Wong. Records good. No diversion upstream of station. Water is diverted by Koolau Ditch, 500 ft downstream, for domestic supply and irrigation of sugarcane in central Maui.

AVERAGE DISCHARGE.--83 years (water years 1915, 1917, 1923-2003), 34.5 ft³/s (24,980 acre-ft/yr).

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 9,900 ft³/s, January 14, 1923, gage height, 13.5 ft, from floodmarks, from rating curve extended above 660 ft³/s by logarithmic plotting; minimum, 0.5 ft³/s, July 26, 1922.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 1,900 ft³/s and maximum (*):

	Date	Time	Discharge (ft ³ /s)	Gage height (ft)
	Feb 14	0900	*4,080	*9.90
No other peaks greater than base discharge.				

Minimum discharge, 1.5 ft³/s, on several days, gage height, 0.49 ft.

DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
1	4.3	4.6	4.7	5.5	5.6	11	7.9	7.7	2.2	9.6	31	142
2	3.7	4.1	3.6	4.9	5.8	7.8	5.7	7.0	2.2	9.4	15	24
3	3.2	3.9	4.6	4.4	3.8	6.5	4.7	6.4	2.0	7.2	22	14
4	3.6	3.9	4.3	4.0	3.0	5.8	4.2	6.0	1.9	7.1	11	14
5	16	3.5	3.2	3.7	2.7	5.8	3.8	5.6	2.3	7.0	8.6	16
6	5.4	3.1	2.8	3.4	2.5	5.1	3.6	5.2	1.8	7.8	7.2	14
7	4.9	3.0	80	3.2	2.4	4.7	3.6	5.0	1.6	75	6.3	27
8	5.5	2.8	11	3.0	2.2	4.8	3.3	4.8	1.5	101	19	16
9	8.1	2.7	7.4	2.8	2.1	4.7	3.6	5.3	e1.4	199	54	12
10	4.0	2.6	125	2.7	2.0	4.3	27	8.5	e1.3	27	33	10
11	3.5	2.5	41	38	2.0	3.8	17	5.8	e1.2	18	14	9.3
12	5.2	2.6	13	11	2.0	3.6	9.9	5.2	22	29	21	8.6
13	4.2	2.6	8.2	6.5	1.9	3.4	11	4.5	8.4	54	35	8.1
14	3.2	2.9	6.5	4.8	665	3.2	6.6	4.8	3.8	15	75	9.2
15	35	2.6	5.5	4.0	511	3.1	5.9	5.9	3.9	11	31	7.7
16	44	3.1	4.9	3.5	39	3.1	11	4.3	7.2	9.5	114	6.6
17	11	3.3	4.9	3.2	15	3.4	20	5.5	7.0	8.2	23	6.2
18	7.1	2.6	e4.0	3.0	10	2.9	24	4.5	27	7.3	102	5.9
19	5.7	2.7	e4.0	2.9	11	2.7	21	4.7	15	53	46	5.6
20	4.7	3.1	e3.9	2.8	15	3.2	76	4.9	6.7	19	30	6.0
21	6.5	2.4	3.0	2.7	98	3.6	49	3.7	5.2	11	26	6.0
22	5.4	2.2	3.8	2.5	16	8.1	84	e3.6	4.4	9.6	19	4.9
23	6.0	2.1	30	2.4	15	5.2	30	e3.5	5.4	8.8	17	4.6
24	16	2.0	6.3	2.4	23	3.1	39	3.5	11	7.5	18	4.3
25	10	1.9	4.3	2.5	11	2.7	18	3.2	14	6.7	13	4.1
26	6.2	1.8	11	3.8	9.3	2.5	13	2.9	6.5	6.0	12	3.9
27	5.1	1.7	71	e3.7	7.9	2.4	14	2.8	5.7	5.5	12	3.8
28	4.6	1.7	19	e3.7	11	137	11	2.6	5.0	5.1	10	3.6
29	4.6	63	14	2.1	---	81	9.3	2.5	4.9	4.7	9.4	3.5
30	4.4	8.8	8.7	3.2	---	14	8.4	2.4	15	5.2	8.8	3.4
31	4.5	---	6.6	32	---	8.2	---	2.4	---	5.7	10	---
TOTAL	255.6	149.8	520.2	178.3	1,495.2	360.7	545.5	144.7	197.5	749.9	853.3	404.3
MEAN	8.25	4.99	16.8	5.75	53.4	11.6	18.2	4.67	6.58	24.2	27.5	13.5
MAX	44	63	125	38	665	137	84	8.5	27	199	114	142
MIN	3.2	1.7	2.8	2.1	1.9	2.4	3.3	2.4	1.2	4.7	6.3	3.4
AC-FT	507	297	1,030	354	2,970	715	1,080	287	392	1,490	1,690	802

16518000 WEST WAILUAIKI STREAM NEAR KEANAE—Continued

DISCHARGE, CUBIC FEET PER SECOND—CONTINUED
WATER YEAR OCTOBER 2002 TO SEPTEMBER 2003
DAILY MEAN VALUES

DAY	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP
STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1914 - 2003, BY WATER YEAR (WY)												
MEAN	23.8	45.4	47.8	41.6	45.8	55.1	53.2	28.6	16.5	24.8	25.7	18.0
MAX	133	198	200	192	222	303	221	88.4	67.7	99.4	111	101
(WY)	(1942)	(1922)	(1937)	(1979)	(1932)	(1942)	(1989)	(1914)	(1997)	(1914)	(1914)	(1914)
MIN	0.88	4.06	2.82	2.01	2.65	2.04	4.17	3.86	2.37	1.72	2.85	1.68
(WY)	(1985)	(1992)	(1981)	(1977)	(1995)	(1926)	(1992)	(1945)	(1981)	(1922)	(1973)	(1974)
SUMMARY STATISTICS												
FOR 2002 CALENDAR YEAR												
ANNUAL TOTAL	9,149.1		5,855.0									
ANNUAL MEAN	25.1		16.0						34.5			
HIGHEST ANNUAL MEAN									67.3		1980	
LOWEST ANNUAL MEAN									14.5		1981	
HIGHEST DAILY MEAN	1,010		Mar 17		665		Feb 14		2,260		Jan 26, 1948	
LOWEST DAILY MEAN	1.7		Nov 27		1.2		Jun 11		0.62		Jul 23, 1922	
ANNUAL SEVEN-DAY MINIMUM	1.9		Nov 22		1.6		Jun 5		0.71		Oct 25, 1984	
ANNUAL RUNOFF (AC-FT)	18,150		11,610		24,980							
10 PERCENT EXCEEDS	35		30		73							
50 PERCENT EXCEEDS	7.7		5.6		10				3.3			
90 PERCENT EXCEEDS	3.1		2.5									

e Estimated

